

REMARKS

Status of the Claims

Claims 1-16 are currently pending in the application. Claim 1 has been amended herein and claims 9-16 are newly added. Claims 1-8 have been rejected.

Rejections

Claims 1-8 have been rejected under 35 U.S.C. §101 for statutory double patenting over claims 1-8 of Applicant's U.S. Patent No. 6,634,188 ("the '188 patent").

Specifically, the Examiner states that claims 1-8 of the present application are identical with claims 1-8 of the '188 patent with the exception that the present claims recite a "transition radius" whereas the issued claims recite a "heavily inclined surface." (May 3, 2004 Office Action, p. 2, ¶ 3). The Examiner reads the specification to indicate "that the terms 'heavily inclined surface' and 'transition radius' meant the same thing." (May 3, 2004 Office Action, p. 2, ¶ 4). Further, the Examiner states that the drawing would be deficient if these terms do not have the same meaning. (May 3, 2004 Office Action, p. 2, ¶ 4).

Discussion

Claim 1 has been amended to recite a wedge-shaped cross section having a "heavily inclined surface, said heavily inclined surface including a transition radius". Further, claim 1 as amended requires that the transition radius transition "directly" into the cutting edge. Support for this amendment is found in the specification at page 5, lines 31-34 which states:

The wedge-shaped cutting region -2- transitions from a heavily inclined surface -9- (Figure 2), or

from a transition radius, directly into the cutting
edge -7-.

It is clear from the context of this passage that the word “or” is not used to indicate alternative embodiments, nor is it used to equate the phrases “heavily inclined surface” and “transition radius.” Rather, it is used to indicate that a “transition radius” is a specific example of a heavily inclined surface. This usage comports with the following dictionary definition of “or”:

Or 1 – used as a function word to indicate...(4)
correction or greater exactness of phrasing or
meaning.

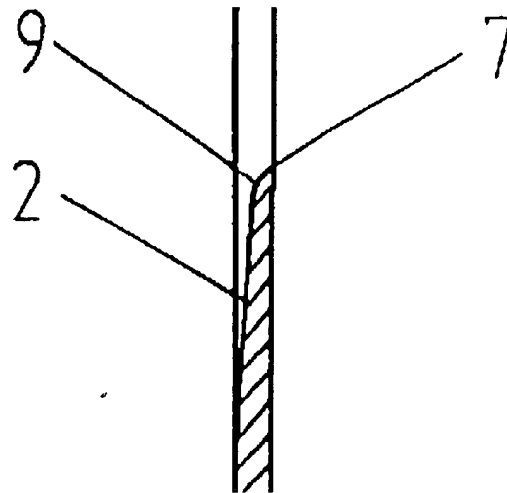
Webster’s Third New International Dictionary (1993).

The specification does not equate a “heavily inclined surface” with any particular topology and, in fact, places no limitation whatsoever on the topology of the “heavily inclined surface.” Rather, the term “heavily inclined surface” is generic to a variety of surface topologies, such as, for example, a planar surface or a radial surface, or combinations of the two.¹ One example (i.e., species) of a “heavily inclined surface” disclosed in the specification is a “transition radius.” Since the “heavily inclined surface” and “transition radius” are related as genus/species, the presently amended claims requiring the cutting region to transition directly from a transition radius into the cutting edge are patentable over the claims of the ‘188 patent. For the same reason, the newly presented claims requiring that the transition radius transition

¹ Of course, the term “heavily inclined surface” as used in the claims of the ‘188 patent, is not limited to these embodiments. See Electro Med. Sys. S.A. v. Cooper Life Sciences, 34 F.3d 1048, 1055 (Fed. Cir. 1994) (“[P]articular embodiments appearing in a specification will not be read into the claims when the claim language is broader than such embodiments.”); Specialty Composites v. Cabot Corp., 845 F.2d 981, 987 (Fed. Cir. 1988) (Claim limitation to “plasticizer” not limited to “external plasticizer” even though every embodiment employed an external plasticizer: “[P]articular embodiments appearing in the specification will not generally be read into the claims.”).

into the cutting edge through a portion of the heavily inclined surface disposed between the transition radius and the cutting edge are also patentable over the claims of the '188 patent.

The Examiner has indicated that if the terms “heavily inclined surface” and “transition radius” do not mean the same thing, the drawings would be deficient. Applicant notes that Figure 2 does in fact illustrate a “transition radius” as indicated by numeral 9. In the particular embodiment illustrated, however, the transition radius does not transition “directly” into the cutting edge. Rather, the transition radius is interrupted by a planar surface portion disposed between the transition radius and the cutting edge, as shown below².



It would be immediately evident, however, to the skilled artisan, that a “cutting region transitioning from said transition radius directly into said cutting edge,” as recited in the claims as amended, would merely omit the intervening planar portion shown in Figure 2.

Applicant respectfully submits that the term “transition radius,” being a well understood term of art, does not require further illustration.

² Accordingly, Figure 2 provides unambiguous support for newly added claims 9-16.

If, however, the Examiner believes that the present application "admits of illustration," Applicant will furnish such a drawing under 35 C.F.R. § 1.81(c). A proposed drawing (showing an expanded view of the cutting region having a wedge-shaped cross-section - 2- transitioning through a heavily inclined surface including a transition radius -9- directly into cutting edge -7-) is attached for the Examiner's consideration.

In view of this amendment, withdrawal of the rejection under 35 U.S.C. §101 is respectfully requested.

CONCLUSION

Applicants respectfully request an early and favorable examination on the merits.

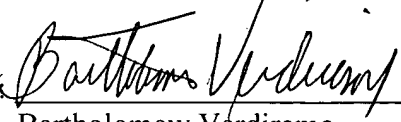
AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for the timely consideration of this amendment under 37 C.F.R. §§ 1.16 and 1.17, or credit any overpayment to Deposit Account No. 13-4500, Order No. 0509-4018US1. A

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Respectfully submitted,

MORGAN & FINNEGAN, L.L.P.

By: 
Bartholomew Verdirame
Registration No. 28,483

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Correspondence Address:

MORGAN & FINNEGAN, L.L.P.
3 World Financial Center
New York, New York 10281-2101
(212) 415-8700 Telephone
(212) 415-8701 Facsimile